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PORTABLE SHADE FOR HOGS

U. S. DEPT. OF AGRICULTURE
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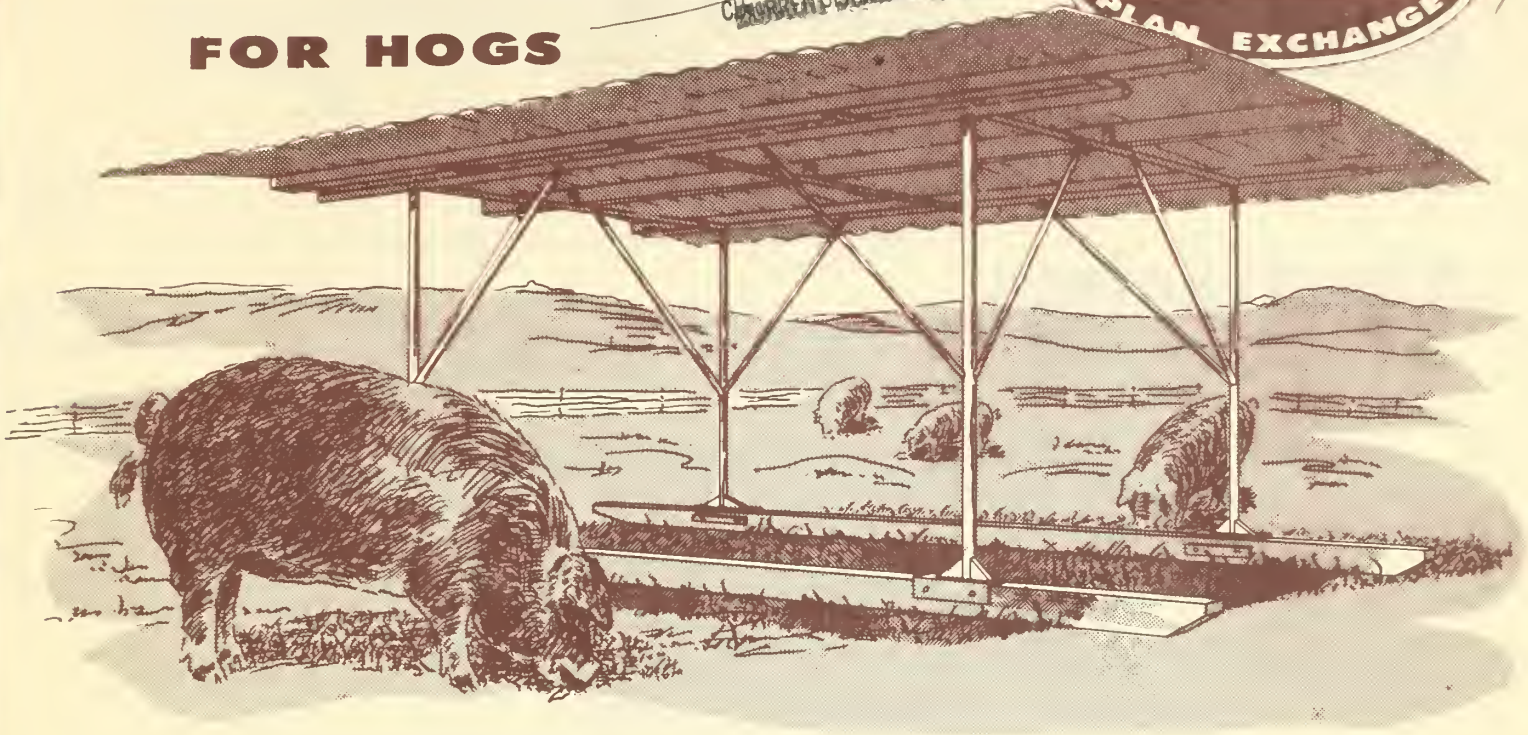
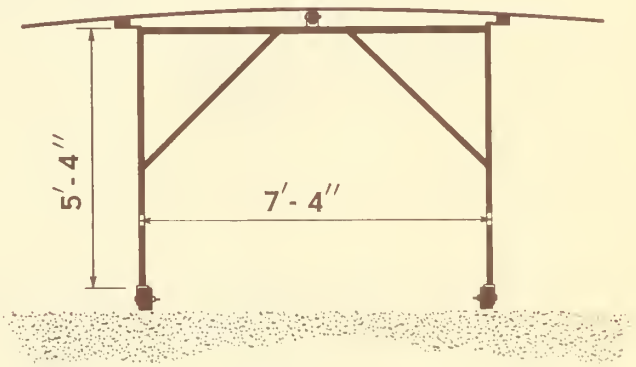
OCT 6 1964
CURRENT SERIAL RECORDS

COOPERATIVE FARM BUILDING
Plan No. 5947
(1-SHEET)
PLAN EXCHANGE





SECTION

Shades may prevent death of hogs during hot weather. Shades increase production efficiency when temperatures are high. Hogs should have as much shade as it is practical to provide. Permanent or stationary shades are often unsatisfactory because they permit rapid buildup of parasite levels under the shades. Thus, some type of shade that can be moved to clean ground when necessary is desirable.

This movable shade for swine was developed as part of a cooperative experiment between the U.S. Department of Agriculture and the Georgia Coastal Plain Experiment Station at Tifton.

The height of the shade (6 feet) promotes drying and better sanitation than does a lower shade. The height does not change the size of shaded area, but higher shades expose more ground to sunshine for a longer period because the shadow moves farther under higher shades.

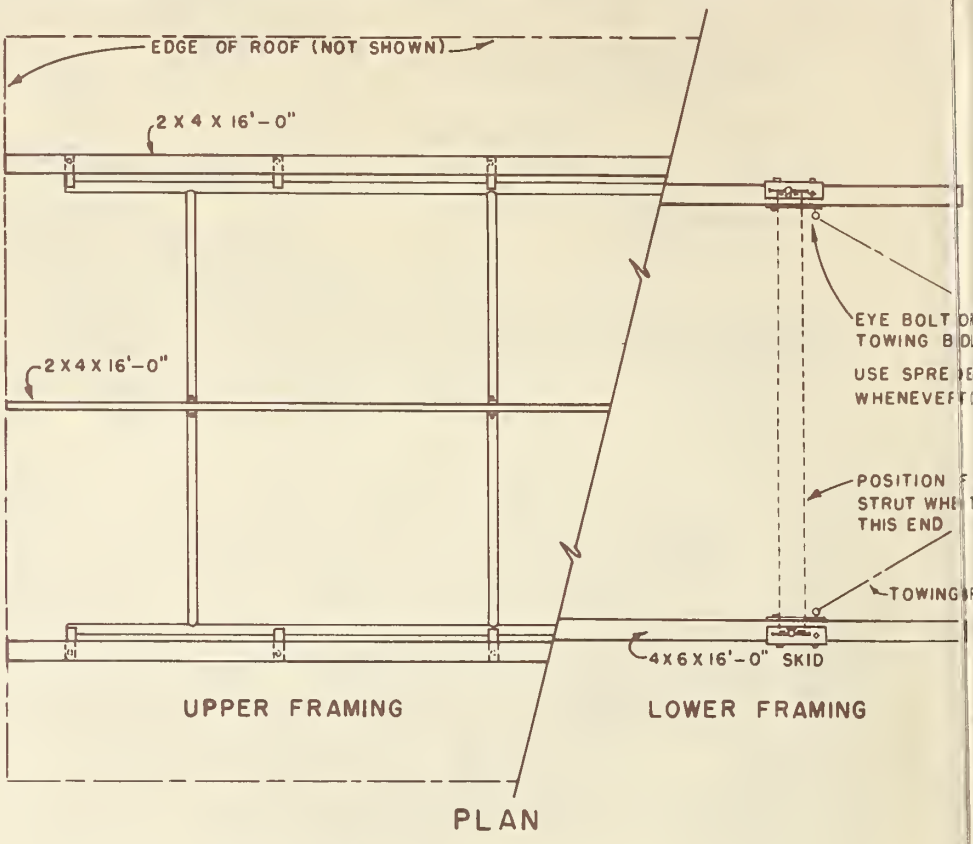
Painting the metal roof white on the topside and black on the underside provides a cooler shade.

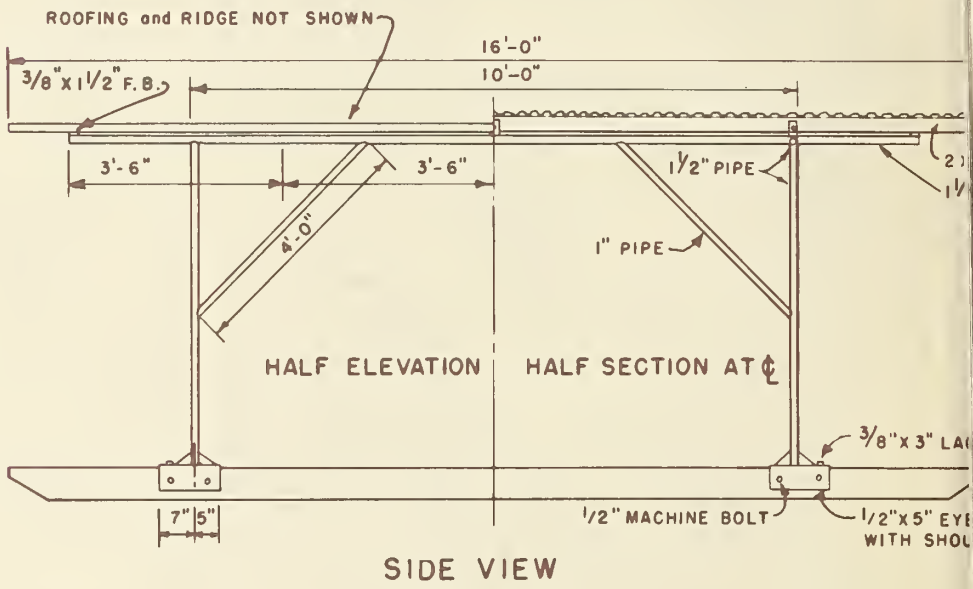
The shade as designed will clear fence posts and gate openings on most farms. However, trees should be avoided because of possible damage to the roof. The shade must be staked down to prevent possible wind damage.

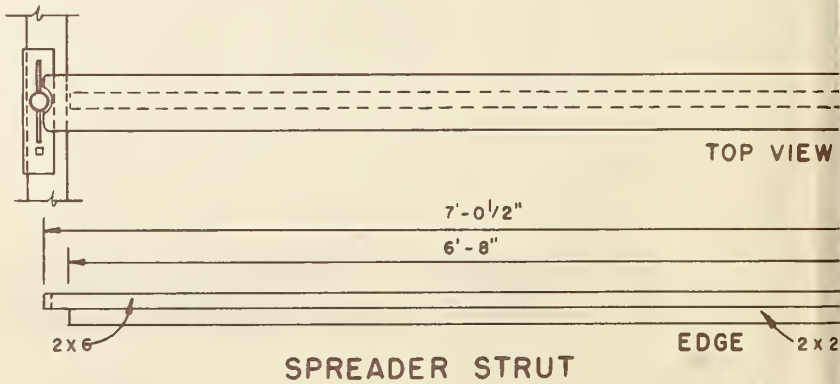
Washington, D.C. Issued September 1964

UNITED STATES DEPARTMENT OF AGRICULTURE Miscellaneous Publication No. 975

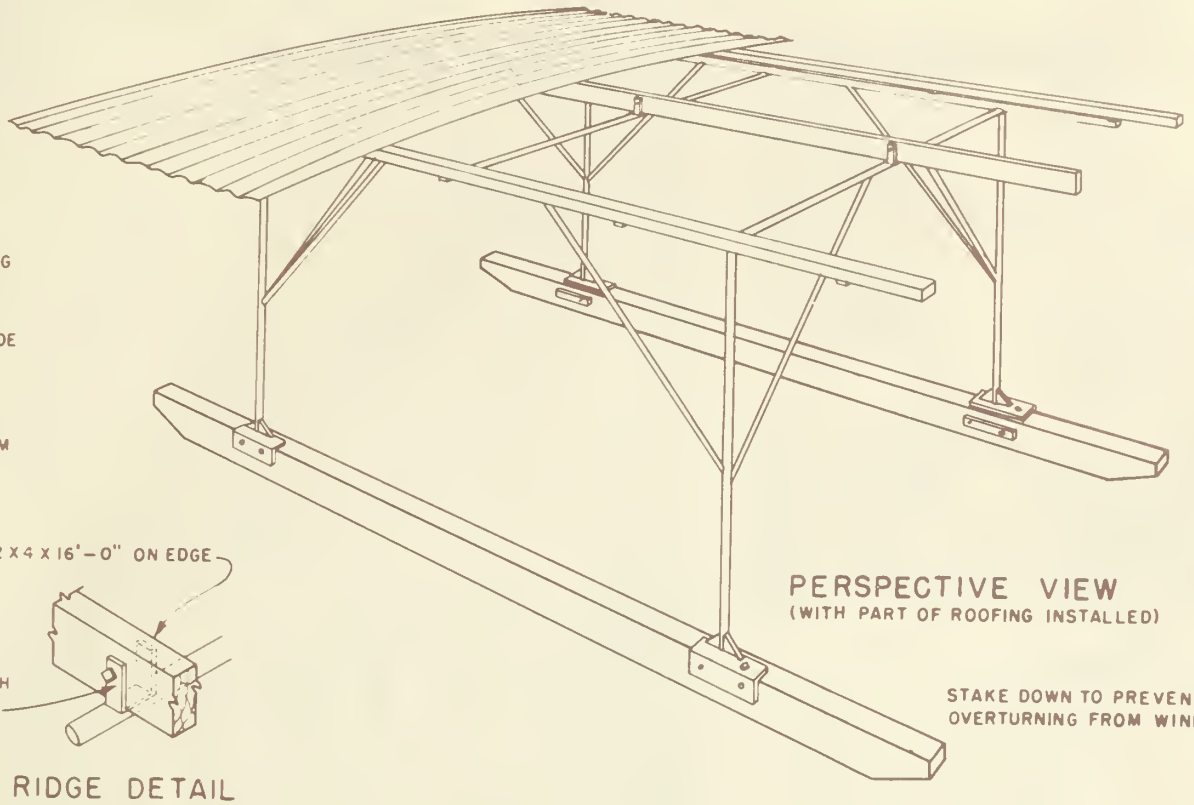
details of construction





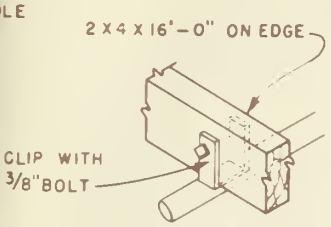


NOTE: ONLY ONE REQUIRED REGARDLESS OF NUMBER OF SHADES USED

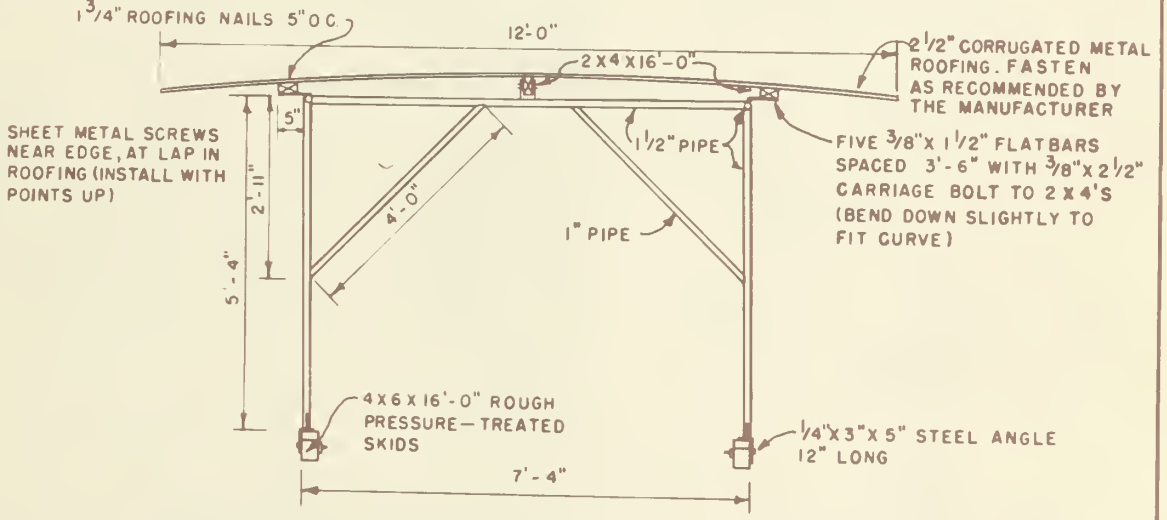


PERSPECTIVE VIEW
(WITH PART OF ROOFING INSTALLED)

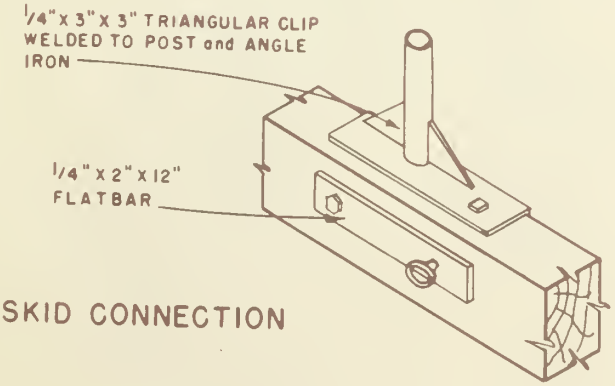
STAKE DOWN TO PREVENT OVERTURNING FROM WIND



RIDGE DETAIL



END VIEW

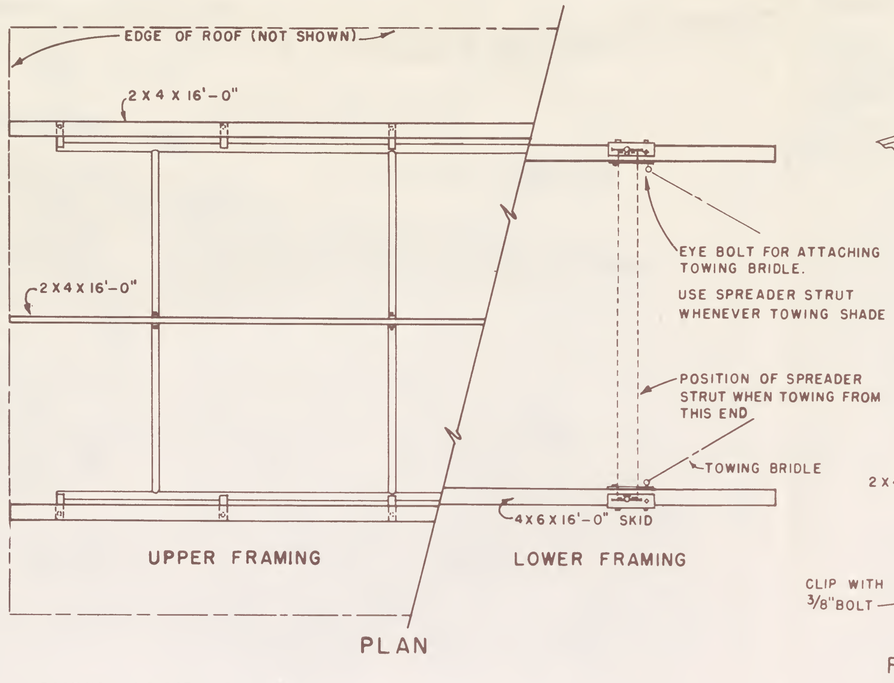


SKID CONNECTION

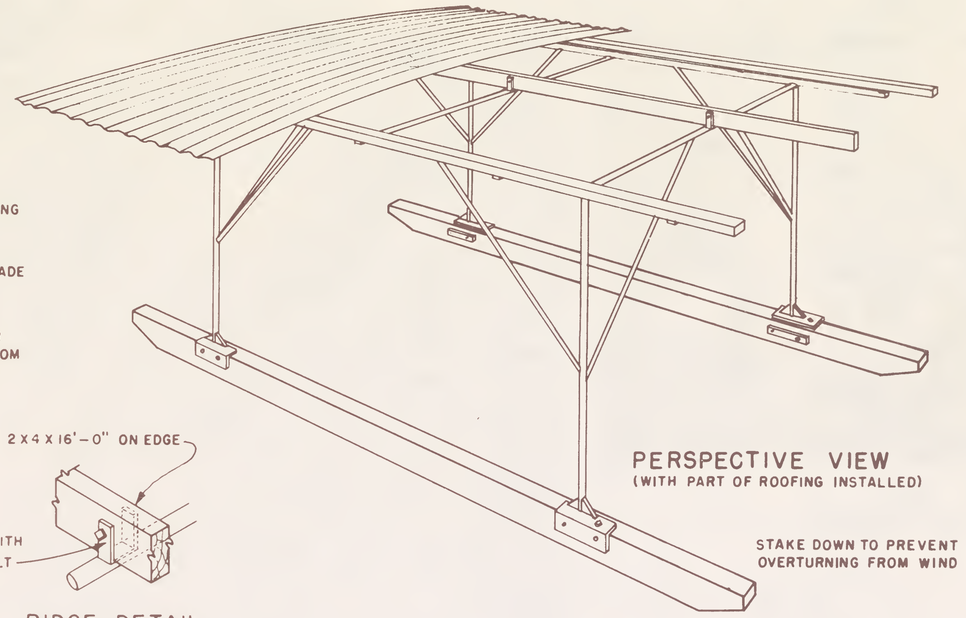
NOTE: ALL METAL TO METAL CONNECTIONS WELDED EXCEPT WHERE OTHERWISE NOTED

PORTABLE SHADE FOR HOGS		
USDA 1963	EX 5947	SHEET 1 Of 1

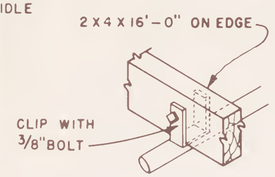
details of construction



PLAN



PERSPECTIVE VIEW
(WITH PART OF ROOFING INSTALLED)



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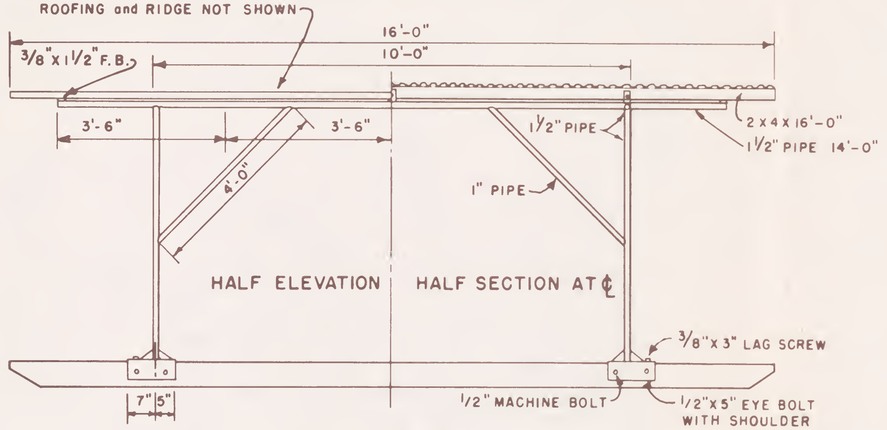
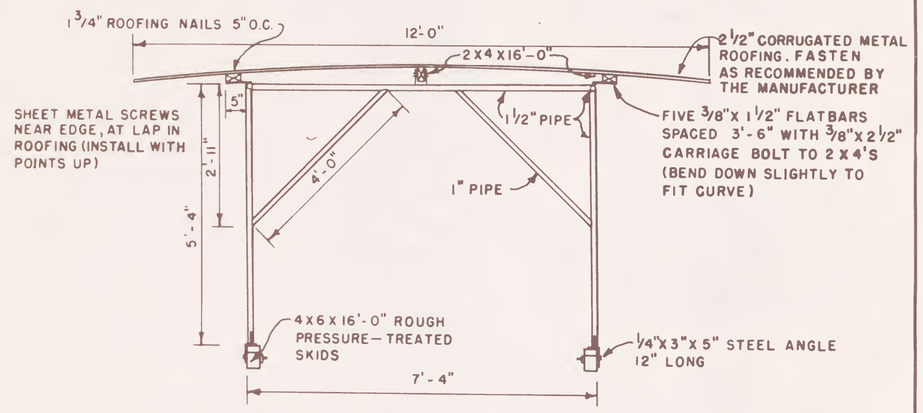
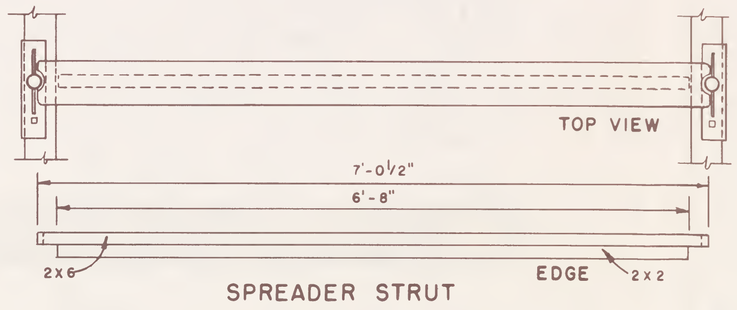


SIDE VIEW

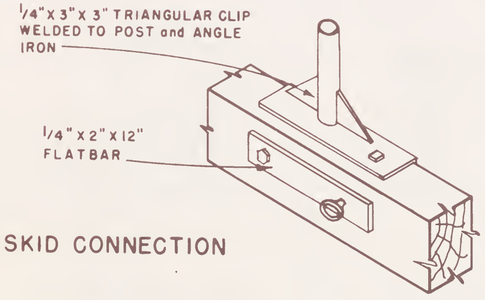


END VIEW



SPREADER STRUT

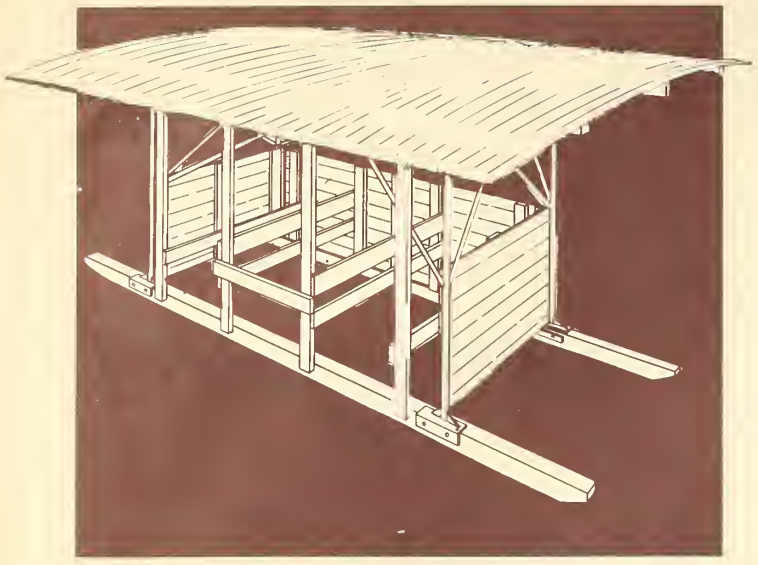
NOTE: ONLY ONE REQUIRED REGARDLESS OF NUMBER OF SHADES USED



SKID CONNECTION

NOTE: ALL METAL TO METAL CONNECTIONS WELDED EXCEPT WHERE OTHERWISE NOTED

PORTABLE SHADE FOR HOGS		
USDA 1963	EX. 5947	SHEET 1 OF 1



farrowing crates

For two sows and their litters

For wintertime farrowing, removable panels made of 1" boards fastened together with 1 x 4 battens 32" high are placed at the two ends and one side of the shade. The panels are supported by the 1½" pipe columns and rest on the skids. Two crates are built into the shade to accommodate two sows and their litters. Only six 2 x 4 rails are required for the separation. The front ends of the rails are supported by a 2 x 4 fastened at the bottom to the skids and at the top to the 2 x 4 roof plate.

Arranged this way, the shelter serves sows and nursing litters. If used as a farrowing house, the front should be enclosed and heat lamps should be provided. Canvas or plastic curtains may be installed above the removable panels in areas where the climate is severe.

fog nozzles

During the summer of 1963 at Tifton, Ga., several of these shades were equipped with fog nozzles and were used for growing-finishing pigs and for bred sows during the gestation period. The fog nozzles emitted a fine water spray during the day. Pigs with access to the shades equipped with fog nozzles gained an average of 1.97 pounds per day during a 74-day test, whereas those with access to the same type of shade but without fog nozzles gained an average of 1.80 pounds per day. No difference was noted in feed efficiency between the two groups of pigs; both groups required about 3 pounds of feed per pound of gain. The test indicates that this shade is very satisfactory for growing-finishing pigs fed out on clean pasture. The only advantage of additional cooling devices such as water spray appears to be a slightly increased rate of gain in weight.

If fogging nozzles under the shade are desired, bolt a treated 2" x 2" across the inside corner braces at each end at the desired height. On the 2" by 2" place a ½" galvanized water pipe with one or two fogging nozzles directed down. Connect a rubber hose to one end of the ½" pipe and run overhead to the fence line water pipe. When only one shade unit is used, plug the other end of the ½" pipe. If two or more shades are used end to end, connect the ½" nozzle pipes with a short piece of rubber hose.

Hogs under shades with fog nozzles rooted less than those under shades without fog nozzles. The hogs want to keep cool so they root down to moist earth to obtain the benefits of evaporative cooling. Where the fog nozzles kept the earth moist, the hogs did not have to dig.

A large-scale working drawing may be obtained through your county agent or from the Extension agricultural engineer at most State agricultural colleges. There is usually a small charge.

ORDER PLAN NO. 5947, PORTABLE SHADE FOR HOGS

If the large-scale drawing is not available in your State, write to the U.S. Department of Agriculture, Agricultural Engineering Research Division, Plant Industry Station, Beltsville, Md. The U.S. Department of Agriculture does not distribute drawings but will direct you to a State that does distribute them.

U.S. GOVERNMENT PRINTING OFFICE: 1964—O-740-017

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